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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,416	01/15/2004	Soo Young Oh	0465-1798PUS1	3383

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EXAMINER

HECKERT, JASON MARK

ART UNIT	PAPER NUMBER
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1792

NOTIFICATION DATE	DELIVERY MODE
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12/31/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/757,416	Applicant(s) OH ET AL.	
	Examiner JASON HECKERT	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 25-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. Due to the applicant's amendments to the claims, the previous rejections are rendered moot. New rejections are provided in view of newly found prior art.
2. As discussed in the previous rejections, certain elements, such as the drain, valve, and siphon cap are not considered to be novel elements in the design of steam generators. The newly cited reference '550 shows providing steam in a horizontal drum washing machine. '550 obviates the use of control mechanisms.

Claim Rejections - 35 USC § 103

3. Claims 1-2, 8-11, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent No 0816550 ('550) in view of Nakamura et al. in further view of Morton. '550 teaches supplying steam to a horizontal drum washing machine by utilizing a heating element 9 that delivers water vapor to an exhaustion port (see figures). '550 also obviates the use of a controller (see the top of page 3 of the translated text). '550 does not teach that the steam generator includes a container. Nakamura et al. disclose a steam generator for a washing machine comprising a heater 6 located within a container. The generator exhausts steam into a drum. Nakamura et al. does not disclose that the container has a drain. Morton discloses a sealed humidifier (col. 3 lines 20 – 22) with a drainpipe 34 with exit 40. This pipe has an upper opening disposed in the container higher than the water level 28 and has a lower end 36 positioned outside the container. Water in the container that enters this exit, drains to a level below the upper inlet, specifically in the vicinity of 36, which is at the bottom. The drain operates when water is at a certain level, specifically a level higher than the

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exit 40. Morton's drainpipe operates like a siphon, with the water flowing from the higher opening out the lower opening and can therefore be considered a siphon pipe. It would have been obvious at the time of the invention, to modify the steam generator of '550 and include a container for the coil, as shown by Nakamura et al., and provide a sealed container with a drain, as taught by Morton, in order to prevent leaks yet allow for the removal of residual water.

4. In regards to claims 10 and 14 it is well known that if it is desired to drain all fluid from a system, to locate the drain inlet at the bottom of a tank or receptacle, such as in a common sink. Gravity can be utilized to remove fluid without the addition of another device or power source. Thus, locating a drain inlet near the bottom is considered to be obvious to one skilled in the art for removing all of the contained fluid. Furthermore, altering the location of the drain exit 40 is nothing more than a rearrangement of parts, or a change in height of tubing 34, a cause effective variable. Rearrangement of parts was held to have been obvious. *In re Japikse* 86 USPQ 70 (CCPA 1955). It is well settled that determination of optimum values of cause effective variables such as height of drain tubing, is within the skill of one practicing the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980). Thus, it would have been obvious at the time of the invention to modify the location of the drain inlet, to allow for the removal of fluids to a desired level.

5. Claims 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over '550 in view of Nakamura et al. in view of Morton and further in view of Edwards or Lund. Neither '550, Morton nor Nakamura et al. disclose a siphon cap covering a drainpipe. Edwards shows a sleeve or cap 11 covering a drainpipe 21. Ribs 22 maintain a

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distance between the pipe and the sleeve. The top of the sleeve covers the siphon pipe. In action, the device pulls a siphon that allows water to drain below the level of the siphon cap. Lund shows a similar drain system. A pipe 5 is covered by a capping plate 6. This allows drainage to a level until air enters the system again. Thus, siphon caps covering drain pipes were known at the time of invention for automatic level control. In regards to claim 5, Morton discloses said features of a drainpipe as stated above. It would have been obvious at the time of the invention, to modify '550 and Nakamura et al. with the features of Morton, as stated above, and further include a siphon cap, as taught by Edwards and Lund, in order to provide automatic level control within the device.

6. Claims 12-13 rejected under 35 U.S.C. 103(a) as being unpatentable over '550 in view of Nakamura et al. in view of Morton and further in view of Babuin et al. or Kovich et al. Nakamura and Morton do not disclose a recirculation system. Recirculation systems are well known in laundry machines. Babuin discloses a recirculation pump 17 that circulates wash water back to the drum. Kovich discloses a recirculation system where pump 38 pumps wash liquid from the tub through conduit 74 back into the wash basket via a nozzle 78. Thus, it would have been obvious at the time of the invention to modify Nakamura in view of Morton, as stated above, and further include means for spraying exhausted water from the tub back into the laundry drum as shown by Babuin and Kovich.

7. In regards to claims 13 it is well known that if it is desired to drain all fluid from a system, to locate the drain inlet at the bottom of a tank or receptacle, such as in a

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common sink. Gravity can be utilized to remove fluid without the addition of another device or power source. Thus, locating a drain inlet near the bottom is considered to be obvious to one skilled in the art for removing all of the contained fluid. Furthermore, altering the location of the drain exit 40 is nothing more than a rearrangement of parts, or a change in height of tubing 34, a cause effective variable. Rearrangement of parts was held to have been obvious. *In re Japikse* 86 USPQ 70 (CCPA 1955). It is well settled that determination of optimum values of cause effective variables such as height of drain tubing, is within the skill of one practicing the art. *In re Boesch*, 205 USPQ 215 (CCPA 1980). Thus, it would have been obvious at the time of the invention to modify the location of the drain inlet, to allow for the removal of fluids to a desired level.

8. Claims 25-26 rejected under 35 U.S.C. 103(a) as being unpatentable over '550 in view of Nakamura et al. in view of Morton and further in view of JP 2003-311084 ('084). '550 and Nakamura do not disclose a water valve attached to the steam generator. '084 teaches a valve 14 that provides water to a steam generator. Furthermore, the inclusion of a water valve to deliver water to washing machine components is considered to be an obvious modification due to its conventionality in the art. Thus, including a water supply valve is obvious to one of ordinary skill. Water level is a parameter that is often controlled in the art of steam generation and washing machines. Considering that '550 obviates controller use, one of ordinary skill would find it obvious to control the water valve to as to prevent over filling or under filling, as these are undesirable conditions. It would have been obvious at the time of invention to modify

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'550, Nakamura, and Morton, and include the valve of '084, in order to control fluid flow to the steam generator.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON HECKERT whose telephone number is (571)272-2702. The examiner can normally be reached on Mon. to Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art
Unit 1792

JMH